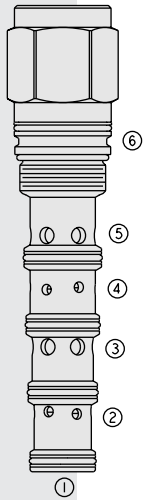


DIRECTIONAL VALVES

PE42-S67H Proportional, Pilot Operated

U.S. Patent
6,554,014



DESCRIPTION

A screw-in, cartridge-style, proportional, spring-centered, pilot-operated spool-type hydraulic directional valve with neutral position bleed-to-tank.

OPERATION

When the **PE42-S67H** is in neutral position port ③ is blocked and ports ② and ④ are connected to ⑤. When the remote pilot signal at ① exceeds the force of the bias spring the spool shifts proportionally to the applied pilot pressure to allow flow from ③ to ④ through a load such as a hydraulic cylinder or motor, and then from ② to ⑤, and to tank. When the pilot signal at ⑥ exceeds the force of the bias spring the spool shifts proportionally to the applied force to allow flow from ③ to ② and from ④ to ⑤. When the pilot signal is less than the force of the bias spring the spool will return to the center position. **The spool is symmetrical and provides meter-in and meter-out control.**

FEATURES

- Hardened spool and cage for long life.
- Cost-effective cavity.
- Excellent metering characteristics.
- Good linearity.

RATINGS

Maximum Operating Pressure: Port ③: 345 bar (5000 psi)

Ports ② and ④: 240 bar (3500 psi)

Ports ① and ⑥: 27.6 bar (400 psi)

Orifice Diameter: Between ports ② and ④ and port ⑤ in neutral position: 0.030 in.

Flow: 0–170 lpm (0–45 gpm); See Performance Chart

Internal Leakage: 1180 ml/minute (72 cu. in./minute) at 207 bar (3000 psi)

Temperature: -40 to 120°C with standard Buna N seals

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

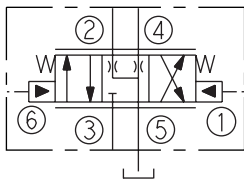
Cavity: VC42-S6; See page 9.142.1

Cavity Tool: CT42-S6; See page 8.600.1

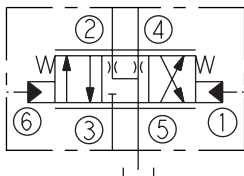
Seal Kit: SK42-S6X-BMMMM; See page 8.650.1

SYMBOLS

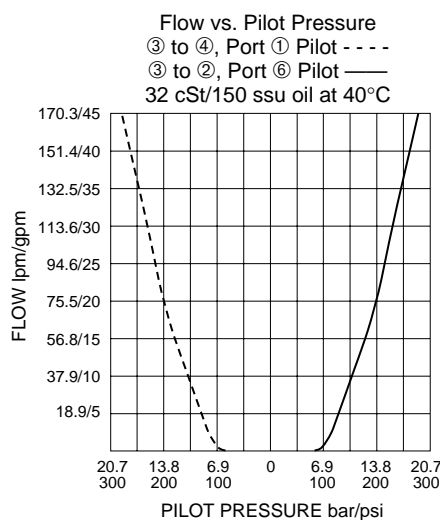
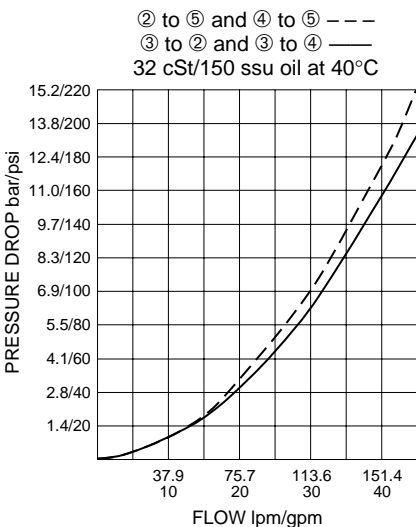
USASI:



ISO:

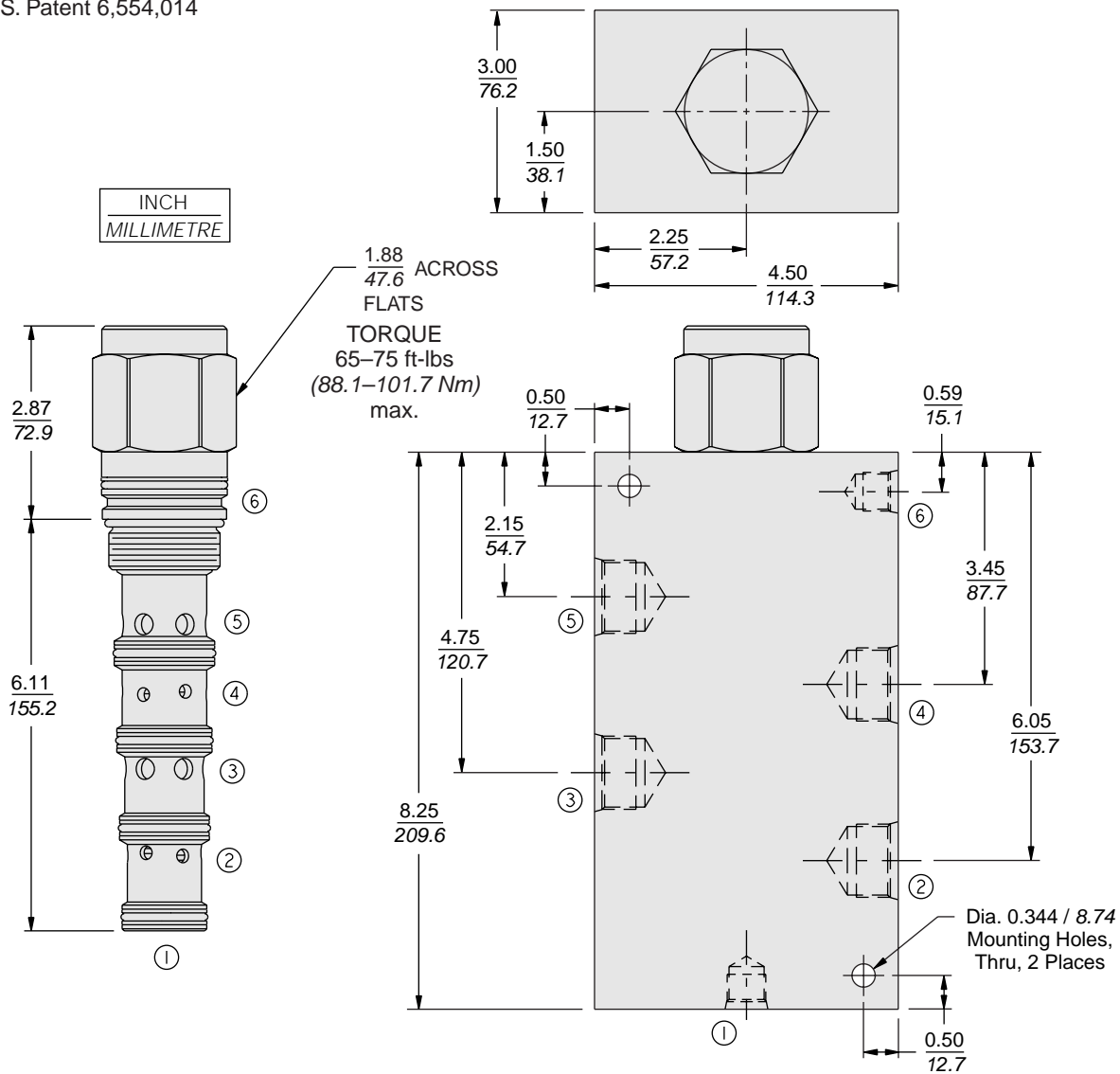


PERFORMANCE (Cartridge Only)



DIMENSIONS

U.S. Patent 6,554,014



MATERIALS

Cartridge: Weight: 0.76 kg. (1.68 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

Ported Body: Ductile Iron,
Rated to 345 bar (5000 psi).
See page 8.042.1

TO ORDER

PE42-S67H - -

| | |
|----------------|-------------|
| Porting | |
| Cartridge Only | 0 |
| SAE 12 | 12TD |
| SAE 16 | 16TD |
| SAE 20 | 20TD |
| *3/4 in. BSP | 6BD |
| *1 in. BSP | 8BD |
| *1-1/4 in. BSP | 10BD |

*BSP Body; U.K. Mfr. Only

Seals

| | |
|----------|---|
| N | Buna N (Std.) |
| P | Polyurethane (Required for pressures over 240 bar/3500 psi) |
| V | Fluorocarbon |